

Junxiu Tang

CONTACT INFORMATION

Zhejiang University
State Key Lab of CAD&CG
Interactive Data Group
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RESEARCH INTERESTS

Summary: My research interest lies in the design and interaction of data-driven communication, storytelling, and event sequence visualization. I am also keen to explore the fusion of scientific logic and artistic expression.

Keywords: Data Visualization, Visual Analytics, Data-driven Art, Data-driven Communication, Data Video

EDUCATION

Zhejiang University, Hangzhou, China 09.2019–Now
Department of Computer Science and Technology
College of Computer Science and Technology
Ph.D. Candidate, with Prof. Yingcai Wu, at ZJUIDG
Research Focus: Visual Analytics of Fixed-order Event Sequence
Data and Data Art

Inria, Palaiseau, France 11.2023–06.2024
Inria Saclay Center
Visiting Ph.D. Student, with Dr. Petra Isenberg, at Aviz
Research Focus: Embedded Visualizations in Swimming Videos

Zhejiang University, Hangzhou, China 09.2014–06.2019
Department of Digital Media Technology
College of Computer Science and Technology
B.Eng.
Research Focus: Data Video

RESEARCH INTERNSHIPS

JD Intelligent Cities Research, Jing Dong Technology 02.2022–06.2022
Beijing, China
Research Intern, Software Engineer Worked on visualization and visual analytics for urban computing, especially on intelligent transportation and disease control. Supervised by Dr. Jie Bao and Prof. Yu Zheng.

IDEA Lab, Alibaba-Zhejiang University Joint Research Institute of Frontier Technology (AZFT) 09.2019–12.2021
Hangzhou, China
Research Intern Cooperated with DAMO Academy and Cainiao.

Cainiao Smart Logistics, Alibaba Group 09.2020–12.2021
Hangzhou, China
Research Intern Worked on visual analytics for intelligent logistics, especially on order processing monitoring and optimization.

**Alibaba DAMO Academy for Discovery, Adventure, Momentum
and Outlook, Alibaba Group**

Hangzhou, China

11.2019-09.2020

Research Intern Worked on visualization theory and intelligent
methods for data video generation and augmentation.

PUBLICATIONS

Asterisk* indicates equal contribution.

Junxiu Tang, Fumeng Yang, Jiang Wu, Yifang Wang, Jiayi Zhou, Xiwen Cai, Lingyun Yu, and Yingcai Wu. A Comparative Study on Fixed-order Event Sequence Visualizations: Gantt, Extended Gantt, and Stringline Charts. In *IEEE Transactions on Visualization and Computer Graphics (TVCG)* 2024, doi: 10.1109/TVCG.2024.3358919, OSF.

Junxiu Tang, Yuhua Zhou, Tan Tang, Di Weng, Boyang Xie, Lingyun Yu, Huaqiang Zhang, and Yingcai Wu. A Visualization Approach for Monitoring Order Processing in E-Commerce Warehouse. In *IEEE Transactions on Visualization and Computer Graphics (TVCG)* 2022 (*Proceedings of IEEE VIS '21*), doi: 10.1109/TVCG.2021.3114878.

Junxiu Tang, Lingyun Yu, Tan Tang, Xinhuan Shu, Lu Ying, Yuhua Zhou, Peiran Ren, and Yingcai Wu. Narrative Transitions in Data Videos. Short Paper. In *Proceedings of IEEE VIS '20*, doi: 10.1109/VIS47514.2020.00037, project webpage.

Junxiu Tang, Rui Sheng, Yifang Wang, Xinhuan Shu, Xiaojiao Chen, Tan Tang, and Yingcai Wu Posts with No Response: The Island of Loneliness. In *IEEE VIS Arts Program (VISAP2023@IEEE VIS)*, doi: 10.1109/VISAP60414.2023.00007, OSF.

Junxiu Tang, Jiayi Zhou, Yifang Wang, Xinhuan Shu, Peiquan Xia, Xiaojiao Chen, Tan Tang, and Yingcai Wu. Loss of Sonnet 18. In *ACM SIGGRAPH Art Gallery (2024)*, doi: to appear, OSF.

Junxiu Tang, Huimin Ren, Zikun Deng, Di Weng, Tan Tang, Lingyun Yu, Jie Bao, Yu Zheng, and Yingcai Wu Towards Better Illegal Chemical Facility Detection with Hazardous Chemicals Transportation Trajectories. In *Proceedings of ChinaVis '24*, doi: to appear.

Tan Tang*, **Junxiu Tang***, Jiewen Lai, Lu Ying, Peiran Ren, Lingyun Yu, and Yingcai Wu SmartShots: Enabling Automatic Generation of Videos with Data Visualizations Embedded. Extended Abstract. In *ACM International Conference on Multimedia (Proceedings of MM '20)*, doi: 10.1145/3394171.3414356.

Tan Tang, **Junxiu Tang**, Jiewen Lai, Lu Ying, Yingcai Wu, Lingyun Yu, and Peiran Ren SmartShots: An Optimization Approach for Generating Videos with Data Visualizations Embedded. In *ACM Transactions on Interactive Intelligent Systems (TiiS)* 2022, doi: 10.1145/3484506.

Sadia Rubab, **Junxiu Tang**, and Yingcai Wu Examining Interaction Techniques in Data Visualization Authoring Tools from the Perspective of Goals and Human Cognition: A Survey. In *Journal of Visualization* 2021, doi: 10.1007/s12650-020-00705-3.

Tan Tang, **Junxiu Tang**, Jiayi Hong, Lingyun Yu, Peiran Ren, and Yingcai Wu Design Guidelines for Augmenting Short-form Videos using Animated Data Visualizations. In *Journal of Visualization* 2021 (*Proceedings of ChinaVis '19*), doi: 10.1007/s12650-020-00644-z.

Jiayi Zhou, Renzhong Li, **Junxiu Tang**, Tan Tang, Haotian Li, Weiwei Cui, and Yingcai Wu. Understanding Nonlinear Collaboration between Human and AI Agents: A Co-design Frame-

work for Creative Design. In *ACM CHI conference on Human Factors in Computing Systems (Proceedings of CHI '24)*, doi: 10.1145/3613904.3642812.

Xinhuan Shu, Aoyu Wu, **Junxiu Tang**, Benjamin Bach, Yingcai Wu, and Huamin Qu What Makes a Data-GIF Understandable? In *IEEE Transactions on Visualization and Computer Graphics (TVCG) 2021 (Proceedings of IEEE VIS '20)*, doi: 10.1109/TVCG.2020.3030396, [project webpage](#).

Sadia Rubab, Lingyun Yu, **Junxiu Tang**, Yingcai Wu Exploring Effective Relationships Between Visual-Audio Channels in Data Visualization. In *Journal of Visualization 2023*, doi: 10.1007/s12650-023-00909-3.

Tan Tang, Kaijuan Yuan, **Junxiu Tang**, Yingcai Wu Toward the Better Modeling and Visualization of Uncertainty for Streaming Data. In *Journal of Visualization 2018 (Proceedings of ChinaVis '18)*, doi: 10.1007/s12650-018-0518-y.

Ran Chen, Xinhuan Shu, Jiahui Chen, Di Weng, **Junxiu Tang**, Siwei Fu, and Yingcai Wu Nebula: A Coordinating Grammar of Graphics. In *IEEE Transactions on Visualization and Computer Graphics (TVCG) 2022*, doi: 10.1109/TVCG.2021.3076222.

Yifang Wang, Yang Wang, Yifan Cao, Huamin Qu, **Junxiu Tang**, and Yingcai Wu Explore Mindfulness without Deflection: A Data Art Based on the Books of Songs. Pictorial. In *Proceedings of IEEE VISAP '21*, doi: 10.1109/VISAP52981.2021.00014, [project webpage](#).

ACADEMIC TALK

Posts with No Response: The Island of Loneliness.

Melbourne, Australia

Oct. 2023

Conference talk @IEEE VIS 2023

Visualization x Art.

Hangzhou, China

Jun. 2023

Invited talk

@School of Design and Innovation, China Academy of Art

A Visualization Approach for Monitoring Order Processing in E-Commerce Warehouse.

New Orleans, Louisiana, USA (Virtual)

Oct. 2021

Conference talk @IEEE VIS 2021

Narrative Transitions in Data Videos.

Salt Lake City, Utah, USA (Virtual)

Oct. 2020

Conference talk @IEEE VIS 2020

Design Guidelines for Augmenting Short-form Videos using Animated Data Visualizations.

Chengdu, China

Jul. 2019

Conference talk @China Vis 2019

A Gear-like Storyline of Inception.

Shanghai, China

Jul. 2018

Conference talk @China Vis 2018

	Toward the Better Modeling and Visualization of Uncertainty for Streaming Data. Shanghai, China Conference talk @China Vis 2018	Jul. 2018
ART EXHIBITION	Loss of Sonnet 18. SIGGRAPH Art Gallery, Denver, US	Jul. 2024
	Posts with No Response: The Island of Loneliness. China Vis Art Exhibition, Hong Kong, China Infomation+ Exhibition, Edinburgh, UK IEEE VIS Art Exhibition, Melbourne, Australia	Jul. 2024 Nov. 2023 Oct. 2023
	A Gear-like Storyline of Inception. China Vis Art Exhibition, Shanghai, China	Jul. 2018
PEER REVIEW AND ACADEMIC SERVICE	Student Volunteer China Visualization and Visual Analytics Conference (ChinaVis) IEEE Eurographics / VGTC Symposium on Visualization (EuroVis) Infomation+ Conference (Info+)	2024 2024 2023
	Conference Review IEEE VIS: Visualization & Visual Analytics IEEE Pacific Visualization Symposium (PacificVis) ACM Conference on Human Factors in Computing Systems (CHI) China Visualization and Visual Analytics Conference (ChinaVis)	2022-2024 2024 2024 2022-2024
TEACHING	Zhejiang University 21191590: Cross Media Visualization 21121280: Information Visualization Teaching Assistant	Winter 2022
	Zhejiang University International Visualization Summer School Teaching Assistant, Teaching Assistant Coordinator (TAC)	Summer 2021
	Zhejiang University International Visualization Summer School Teaching Assistant	Summer 2019-2020
	Zhejiang University 21191590: Cross Media Visualization 21121280: Information Visualization Teaching Assistant, Teaching Assistant Coordinator (TAC)	Winter 2020
MENTORSHIP	Zhejiang University Jiayi Zhou, Ph.D. student, co-mentored with Yingcai Wu Boyang Xie, undergraduate student, co-mentored with Yingcai Wu Lu Ying, Ph.D. student, co-mentored with Yingcai Wu	2022-2024 2020-2021 2019-2020